

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF OREGON

ROCKY BIXBY, LAWRENCE ROBERTA,  
SCOTT ASHBY, CHARLES ELLIS, MATTHEW  
HADLEY, JESUS BRUNO, COLT CAMPREDON,  
STEPHEN FOSTER, BYRON GREER, KELLY  
HAFER, DENNIS JEWELL, STEPHEN  
MUELLER, VITO PACHECO, JOHN RYDQUIST,  
KEVIN STANGER, RONALD BJERKLUND,  
ADANROLANDO GARCIA, BRIAN HEDIN,  
CHARLES SEAMON, RANDY KEIPER, MATT  
KUHNEL, DENNIS ROSGEN, AARON  
ST. CLAIR, KEVIN WILSON, JASON BLAIN,  
JAMES BORJA, DEVON FIELDS, LESLIE ING,  
RICHARD LAWRENCE, JAY LOUISIANA,  
JAMES McGOWAN, DONALD YEARGIN,  
JASON ARNOLD, and MICHAEL O'RIELLY,

Plaintiffs,

3:09-CV-632-PK

v.

OPINION AND  
ORDER

KBR, INC., KELLOGG, BROWN & ROOT SERVICE,  
INC., KBR TECHNICAL SERVICES, INC.,  
OVERSEAS ADMINISTRATION SERVICES, LTD.,  
and SERVICE EMPLOYEES INTERNATIONAL, INC.,

Defendants.

PAPAK, Magistrate Judge:

Plaintiffs Rocky Bixby, Lawrence Roberta, Scott Ashby, Charles Ellis, and Matthew Hadley filed this action against defendants KBR, Inc., Kellogg, Brown & Root Service, Inc.,

KBR Technical Services, Inc., Overseas Administration Services, Ltd., and Service Employees International, Inc. (collectively, the "KBR defendants"), on June 8, 2009. On September 8, 2009, plaintiffs amended their complaint, adding Carlos Avalos, Jesus Bruno, Colt Campredon, Stephen Foster, Byron Greer, Kelly Hafer, Dennis Jewell, Stephen Mueller, Vito Pacheco, John Rydquist, and Kevin Stanger as additional plaintiffs. Plaintiffs amended their pleading a second time on February 2, 2010, adding Ronald Bjerklund, Adanrolando Garcia, Brian Hedin, Lewis Martin, and Charles Seamon as additional plaintiffs. On June 25, 2010, plaintiffs amended their complaint a third time, adding Randy Keiper, Matt Kuhnel, Dennis Rosgen, Aaron St. Clair, and Kevin Wilson as further additional plaintiffs. On October 27, 2010, plaintiffs amended their complaint a fourth time, adding Jason Blain, James Borja, Devin Fields, Leslie Ing, Richard Lawrence, Jay Louisiana, James McGowan, and Donald Yeargin as further additional plaintiffs, and adding Halliburton Company and Halliburton Energy Services, Inc. (collectively, the "Halliburton defendants"), as additional defendants. Plaintiffs amended their complaint a fifth time on January 10, 2011, adding as additional plaintiffs Jason Arnold, Thomas Barella, Daniel Grover, Christopher Wangelin, and Michael O'Rielly. Plaintiffs voluntarily dismissed Barella as a plaintiff in this action on the following day, January 11, 2011, and voluntarily dismissed Grover as a plaintiff in this action on February 25, 2011. On June 16, 2011, these chambers recommended that the court dismiss the plaintiffs' claims to the extent alleged against the Halliburton defendants for lack of personal jurisdiction, and on July 20, 2011, Judge Hernandez adopted that recommendation as his own opinion. The parties stipulated to the dismissal of Avalos, Martin, and Wangelin as plaintiffs in this action, on December 16, 2011, and to the dismissal of O'Rielly as a plaintiff on April 4, 2012. In their fifth amended complaint, plaintiffs

allege defendants' liability for negligence and for fraud arising out of plaintiffs' exposure to sodium dichromate and subsequent hexavalent chromium poisoning while stationed as Oregon National Guardsmen in Iraq and assigned to duty at the Qarmat Ali water plant in May-September 2003.

Now before the court is defendants' motion (#338) for summary judgment as to whether certain specified plaintiffs' claims are time-barred under applicable statutes of limitations.<sup>1</sup> I have considered the motion, oral argument on behalf of the parties, and all of the pleadings on file. For the reasons set forth below, defendants' motion is denied in its entirety.

### **LEGAL STANDARD**

Summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). Summary judgment is not proper if material factual issues exist for trial. *See, e.g., Celotex Corp. v. Catrett*, 477 U.S. 318, 322 (1986); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986); *Warren v. City of Carlsbad*, 58 F.3d 439, 441 (9th Cir. 1995), *cert. denied*, 116 S.Ct. 1261 (1996). In evaluating a motion for summary judgment, the district courts of the United States must draw all reasonable inferences in favor of the nonmoving party, and may neither make credibility determinations nor perform any weighing of the evidence. *See, e.g., Lytle v. Household Mfg., Inc.*, 494 U.S. 545, 554-55 (1990); *Reeves v.*

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<sup>1</sup> Defendants assert that all claims brought by all plaintiffs in this action are time-barred under the applicable two-year limitations period, but in support of the motion now before the court argue only that the claims brought by plaintiffs Arnold, Ashby, Bixby, Ellis, Ing, Jewell, Keiper, McGowan, Mueller, Roberta, Rosgen, St. Clair, Stanger, Wilson, and Yeargin are time-barred.

*Sanderson Plumbing Products, Inc.*, 530 U.S. 133, 150 (2000).

## **FACTUAL BACKGROUND<sup>2</sup>**

### **I. History of the Parties' Dispute**

Kellogg, Brown & Root Service, Inc. ("KB&RS") entered into Contract No. DACA63-03-D-0005 – known as the "Restore Iraqi Oil" or "RIO" contract – with the U.S. Army Corps of Engineers on March 8, 2003, pursuant to which KB&RS would perform tasks as ordered by the U.S. Army Corps of Engineers in connection with efforts to restore the infrastructure underlying the Iraqi oil industry.

Combat operations in Iraq began on March 19, 2003.

On March 20, 2003, the Corps of Engineers issued "Task Order 3," which governed the services to be provided by KBR and its subsidiaries at Qarmat Ali and other facilities. Under Task Order 3, the U.S. military would declare a given worksite to be "benign" before KBR would begin operations there. According to the deposition testimony of retired Brigadier General of the U.S. Army Corps of Engineers Robert Crear and of retired U.S. Army Corps of Engineers employee Gordon Sumner, "benign" referred to freedom from combatant activity and from nuclear or chemical weapons, and did not foreclose the possibility of environmental hazards, including hazardous (but not weaponized) chemicals. Support for this interpretation can be found in the provisions of Task Order 3, which suggest that pronouncement of a site as "benign" did not, for example, foreclose the need for environmental assessment.

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<sup>2</sup> Except where otherwise indicated, the following recitation constitutes my construal of the evidentiary record in light of the legal standard governing motions for summary judgment under Federal Civil Procedure Rule 56.

It appears from the language of Task Order 3<sup>3</sup> that KBR was responsible for providing the Corps of Engineers with an environmental assessment of any facility in which they undertook operations. The obligation to provide such assessments included the obligation to report and evaluate any environmental hazards. According to the deposition testimony of General Crear and of Sumner, KBR was not merely permitted but required under Task Order 3 and the RIO contract to take all necessary precautions to safeguard personnel who might potentially be exposed to environmental hazards at worksites, including the wearing of protective gear and/or the closing down of operations at any unsafe site.

The RIO contract sets forth specific health and safety requirements KBR was required to comply with in performing services under the contract, including Overseas Environmental Baseline Guidance Document 4715.5-G (Mar. 2000), OHSA standards, industry standards, CERCLA requirements, environmental assessment requirements, Army safety regulations, and Army Corps of Engineers safety standards. These requirements were never waived.

The RIO contract further provides that the U.S. government will indemnify KBR for any claims involving bodily injury or death arising out of KBR's provision of services under the contract.

In April 2003, the KBR defendants began operations at Qarmat Ali. In May 2003, the Oregon National Guard was assigned to the Doha Operations Center in Kuwait. Beginning some time after May 1, 2003, the KBR defendants, or some of them, would contact the Doha Operations Center and request assistance with security issues on a regular, perhaps daily basis, in

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<sup>3</sup> Moreover, the army briefed the Senate on December 22, 2008, that KBR was required to perform an initial site assessment of Qarmat Ali "in order to establish an environmental baseline."

accordance with the provisions of the RIO contract and Task Order 3. On some occasions, members of the Oregon National Guard would receive security assignments to the Qarmat Ali water plant, where they were allegedly exposed to sodium dichromate.

In an internal email, in June 2003 a KBR employee discussed sodium dichromate contamination at Qarmat Ali and recommended that remedial measures be taken, including excavating and placing in drums all contaminated soil.

Defendants did not advise the Oregon National Guard of the presence of sodium dichromate at Qarmat Ali until August 12, 2003, when KBR issued an official report to the army detailing the chemical's presence. The report indicated that sodium dichromate at Qarmat Ali constituted a serious health hazard.

The Qarmat Ali site was shut down September 9, 2003.

Plaintiffs are members of the Oregon National Guard allegedly exposed to sodium dichromate at Qarmat Ali in 2003 who have allegedly been harmed by their exposure.

## **II. Facts Material to Disposition of Defendants' Motion**

Each of the plaintiffs whose claims are within the scope of the motion now before the court experienced irritation-related symptoms contemporaneously with or following their service at Qarmat Ali. While plaintiff Arnold was serving at Qarmat Ali, he was advised that the "busted open" bags that he had observed from a distance of approximately 100 yards and the "piles of yellowish-orangish dust" that he had observed near the bags and elsewhere on site contained a "mild irritant" not sufficiently serious that Arnold "needed to be worried about it" or to warrant the use of any "precautions or . . . protection[s]." Deposition of Jason Arnold ("Arnold Depo."), 55:1-16, 87:1-25. Arnold experienced symptoms of wheezing and restricted breathing while

returning from his deployment to Qarmat Ali, and because he had been advised that he had been exposed to a mild chemical irritant at Qarmat Ali, formed the contemporaneous subjective belief that his symptoms could be "attributed" to his exposure to an irritant at Qarmat Ali. *Id.*, 150:13-18. Moreover, Arnold heard rumors while still serving in Iraq and Kuwait in 2003 that some of his fellow soldiers had been tested for sodium dichromate exposure. *See id.* at 92:6-23. When Arnold inquired as to whether he and his colleagues should likewise be tested for chemical exposure, he was informed that "measures were being taken." *Id.*, 93:8-25. Arnold never inquired as to what specific measures these were. *See id.* Arnold's respiratory symptoms progressively worsened, and any time his symptoms "flared up" he would follow up with medical personnel. *Id.* at 94:7-13. Each time he did so, he was advised that the cause of his symptoms was either "just typical being in the desert or . . . asthma." *Id.*, 94:14-23. Arnold first came to believe that his exposure to sodium dichromate at Qarmat Ali might have been attributable to any party's tortious conduct in 2009 when he heard from a news report that KBR had concealed the extent of the hazard posed by sodium dichromate contamination at Qarmat Ali. *See id.* 151:3-23. This was also the first time that Arnold learned of KBR's role in the work being done at Qarmat Ali. *See Declaration of Jason Arnold ("Arnold Decl."), ¶ 2.*

During or shortly following his deployment to Qarmat Ali, plaintiff Ashby experienced irritation symptoms in his stomach and throat. Deposition of Scott A. Ashby ("Ashby Depo."), 139:6-19. Within a few months later, Ashby learned that his colleague plaintiff Roberta was also having stomach problems. *See id.*, 160:9-18. Ashby first heard about the presence of sodium dichromate at Qarmat Ali in March 2004. *See id.*, 116:20-22, 119:5-9. Ashby was "told at that time that none [of his unit] had been exposed to it and not to worry about it." *Id.*, 116:23-25,

118:8-18. Ashby did not contemporaneously attribute his symptoms to sodium dichromate exposure at Qarmat Ali, in part because he was aware he had been exposed to phosphorous and to industrial smoke at Port Shuaiba and other places in Iraq and Kuwait where he had served. *See id.*, 225:2-6. Ashby made no affirmative inquiry or investigation regarding the potential health effects of sodium dichromate exposure until 2009. 120:19-23. Ashby learned for the first time about KBR's role in the work being done at Qarmat Ali in 2009. *See id.*, 41:18-24.

During plaintiff Bixby's deployment to Qarmat Ali he experienced respiratory symptoms including coughing and nosebleeds. *See* Deposition of Rocky Lane Bixby ("Bixby Depo."), 78:1-6. He had not experienced such symptoms during previous desert deployments. *See id.*, 78:7-15. He did not, however, report his symptoms to any medical officer, because another soldier had reported similar symptoms and been informed that his symptoms had been caused by windborne sand. *See id.* 78:16-24. In October 2003, Bixby filled out a form regarding his exposure to sodium dichromate at Qarmat Ali. *See id.* 172:20 - 173:3. The form indicated that sodium dichromate had been found at Qarmat Ali, but that "based upon the low levels and the brief exposure times, there [wa]s no expected long-term health risk [from the exposure]." *Id.*, 173:8-9. The form provided Bixby with an opportunity to document his exposure time and symptoms, but Bixby did not record any such symptoms because at that time he did not believe his symptoms to be beyond the normal range of "problems encountered in the desert environment." *Id.*, 176:12 - 177:17. Bixby learned for the first time about KBR's role in the work being done at Qarmat Ali in 2009. *See* Declaration of Rocky Lane Bixby ("Bixby Decl."), ¶ 2-4.

Plaintiff Ellis experienced nosebleeds and rashes while and immediately after serving at

Qarmat Ali. *See* Deposition of Charles Ellis ("Ellis Depo."), 111:19-20. His symptoms became more severe over time. *See id.*, 142:12 - 143:1. During the time of his deployment to Qarmat Ali, Ellis observed a member of his platoon experiencing a bloody nose that he attributed to irritation caused by exposure to windborne sand, a member of his platoon who developed a bad cough while at Qarmat Ali, other soldiers "itching and hacking" after returning to Kuwait from Qarmat Ali, and other soldiers from other platoons who suffered nosebleeds at Qarmat Ali. *See id.* at 110:23 - 111:15. Ellis did not observe soldiers suffering nosebleeds prior to being posted to Qarmat Ali. *See id.*, 111:24 - 112:4. Ellis contemporaneously inquired of medical personnel regarding his and his platoon members' congestion and skin irritation symptoms, and apparently was advised that the symptoms were normal responses to the desert environment. *See id.*, 143:6-25. While serving at Qarmat Ali, Ellis observed bags and remnants of bags that contained or had contained orange powder, in piles on the ground and in the buildings on site. *See id.*, 69:22 - 70:1. Ellis testified in deposition that his entire body was exposed to the orange powder from the bags, due in large part to the powder being carried by the wind. *See id.*, 74:4-12. In addition, in April 2004 Ellis was advised that he had been exposed to sodium dichromate at Qarmat Ali. *See id.*, 168:5-13. Ellis was not then advised that sodium dichromate was dangerous, but he "looked it up" and learned that the chemical was a carcinogen. *See id.*, 170:22-25. Ellis subsequently inquired about his symptoms and about their relation, if any, to sodium dichromate exposure at the VA hospital, and was informed by VA medical personnel that his symptoms were related to post-traumatic stress disorder. *See id.*, 170:6-22. At some time in 2004, Ellis attempted to document his chromium exposure, and was advised by VA officials that he could not make a claim based on the exposure he had received. *See id.*, 240:22 - 241:17. At about that same time,

Ellis filled out a "buddy statement" to document the irritation symptoms suffered by several members of his platoon who had served at Qarmat Ali and to document his own observations of the presence of sodium dichromate on site. *See id.*, 252:17 - 253:24. It further appears that in March 2005 Ellis may have seen two "fact sheets" (described in detail below) prepared by the United States Army Center for Health Promotion and Preventative Medicine ("USACHPPM") regarding sodium dichromate, and that he may have provided copies of these fact sheets to plaintiffs Mueller and St. Clair at or around that time. *See id.*, 183:25 - 187:10. Ellis testifies that he was contemporaneously aware of KBR's presence and role at Qarmat Ali, and that he inferred from the fact that KBR employees were wearing "polo shirts" rather than protective gear that KBR had concluded to its own satisfaction that the Qarmat Ali worksite was safe. *See id.*, 217:12-17. However, Ellis further testifies that he did not understand that KBR was in charge of operations at Qarmat Ali until 2009, after speaking to plaintiff Roberta. *See Declaration of Charles Ellis ("Ellis Decl."), ¶¶ 2-4.*

Ing suffered transient nosebleeds while stationed in the Middle East in 2003, and for approximately two months after returning to the United States. *See Deposition of Leslie Keola Yu-Lun Ing, Jr. ("Ing Depo."),* 213:13 - 214:24. He did not contemporaneously connect his nosebleeds to the time he spent at Qarmat Ali, and is not sure whether they began before or after his first deployment to Qarmat Ali. *See id.* Similarly, Ing suffered from a recurring cough and from shortness of breath while stationed in the Middle East and thereafter, but likewise did not contemporaneously associate his respiratory symptoms with time spent in Qarmat Ali. *See id.*, 215:25 - 216:24. In January 2006, nearly three years after his deployment to Qarmat Ali, plaintiff Ing requested a sleep study to investigate whether he suffered from sleep apnea, due to having

been informed that he snored loudly, but denied nighttime awakenings or sleepiness during the day. *See id.*, 203:5-14. At that time, Ing advised his physicians that he had been exposed to sodium dichromate while stationed at Qarmat Ali. Following the sleep study, Ing's physicians were unable to advise him as to whether he had been harmed by sodium dichromate exposure. *See id.*, 203:24 - 204:4. Moreover, his physicians concluded that "due to a lack of symptoms," the need for further testing was not indicated. *See id.*, 204:5 - 205:19. Ing learned for the first time about KBR's role in the work being done at Qarmat Ali in 2009. *See Declaration of Leslie Ing ("Ing Decl."), ¶¶ 2-4.*

On plaintiff Jewell's first deployment to Qarmat Ali he was called upon to repair a military vehicle, a task which required him to lie on his back underneath the vehicle. *See Deposition of Dennie V. E. Jewell ("Jewell Depo."), 81:9-12, 102:17-24.* When he began working on the vehicle, it was located in an area where the orange powder visible on the sand was particularly concentrated. *See id.*, 102:3-24. Within fifteen minutes of beginning work on the vehicle, Jewell requested that it be moved to a paved area, because in its original location he found that his back, sinuses, throat, and eyes were burning, and he was required to "flush" his eyes several times to relieve the sensation. *See id.* The burning sensation in his eyes persisted approximately fifteen or twenty minutes, and the sensation in his nose and throat for a couple of hours. *See id.*, 117:22-24, 118:7-9. The following day, he experienced a rash on his back which persisted for approximately five to six days. *See id.*, 117:25 - 118:6. Jewell did not contemporaneously associate the rash with his exposure to orange sand at Qarmat Ali. *See id.*, 118:19-24. Jewell consulted a military health care provider while his rash was still present and was prescribed a cream to treat the rash symptoms. *See id.* 150:24 - 151:3. Since that time,

Jewell has experienced increased susceptibility to bronchial pneumonia and digestive difficulties. *See id.*, 151:18-24. Jewell was not informed by any party at or around the time of his service that he had been exposed to sodium dichromate at Qarmat Ali, *see id.*, 149:22 - 150:4, but in 2010 he was advised by the military that he should "get in contact with the VA" because "the Army is aware of possible exposure," *id.*, 150:5-14. The communication did not specify to what substance the "possible exposure" referred. *Id.* Later in 2010, Jewell underwent a pulmonary function test at the VA hospital and was advised that his bronchial tubes had been "chemically burned." *Id.*, 152:11 - 153:14. The cause of the chemical burn was not specified. *See id.* Jewell did not learn of KBR's role at Qarmat Ali until 2008 or 2009. *See id.*, 146:11 - 149:6; *see also* Declaration of Dennis Jewell ("Jewell Decl."), ¶¶ 2-4.

Plaintiff Randy Keiper experienced occasional transient nosebleeds, nose irritation, and eye irritation beginning shortly after his deployment to Qarmat Ali. *See* Deposition of Randy Maurice Keiper ("Keiper Depo."), 63:13 - 65:12. In total, he experienced approximately four to five nosebleeds in 2003. *See id.*, 65:10-12. His nosebleeds resumed in 2004, after Keiper was no longer posted to Iraq or Kuwait, and would recur every few months or so. *See id.*, 63:18-24, 65:13-20. At around that time, Keiper was aware of one other soldier in his platoon who experienced similar symptoms. *See id.*, 65:21 - 66:8. Keiper sought contemporaneous medical treatment for his nosebleeds, and was advised that the most likely cause for the symptom was dust. *See id.*, 66:12-19. In addition, Keiper inquired of his chain of command whether the orange dust visible "all over the ground" at Qarmat Ali was a reason for wearing protective gear, and was advised that protective gear was not "part of the uniform" for the Qarmat Ali mission. *See id.*, 39:22 - 42:14. Keiper did not question this pronouncement further. *See id.* In 2004,

Keiper received a copy of one or more of the two "fact sheets" regarding sodium dichromate that had been prepared by USACHPPM in September 2003 (described below), but he merely retained the document (or documents) for his records without taking note of its (or their) contents. *See id.*, 58:17 - 59:5. At the time he received the fact sheet or sheets, he was not suffering any health-related issues that he was "alarmed" about, and therefore did not consider it necessary to follow up with a medical professional. *See id.*, 63:9 - 64:5. In or around 2006, Keiper began to experience respiratory symptoms including shortness of breath, but he did not follow up with a medical professional until 2010, because he was "[t]oo busy taking care of everybody else except for [him]self." *Id.*, 98:5-12. In 2010, when Keiper did seek medical treatment for shortness of breath, he was diagnosed with asthma. *See id.*, 98:14-18. Keiper recalls first hearing the term "sodium dichromate" in March 2010, from his case manager at the Portland VA hospital. *See id.*, 58:11-16. It was only then that he began attempting to learn who was responsible for his exposure to sodium dichromate at Qarmat Ali, and discovered KBR's role in operations at the water treatment plant. *See id.*, 129:10 - 130:5.

Plaintiff McGowan testifies that at or around the time he was performing service at Qarmat Ali, while escorting an unidentified contractor through a looted building the contractor told him something to the effect of "five years, ten years from now we could be dead from all this." Deposition of James Barry McGowan ("McGowan Depo."), 45:1 - 46:23. McGowan testifies that he does not know who made the remark, whether it was made at Qarmat Ali or at some other location, or whether he heard the remark before, during, or after his deployment to Qarmat Ali. *See id.* He further testifies that he did not know specifically to what the phrase "all this" referred, and that he did not have any understanding at the time that he had been exposed to

sodium dichromate. *See id.* He further testifies that he served at numerous locations in Iraq and Kuwait, more than one of which contained looted buildings. *See id.* McGowan experienced nosebleeds at or around the time of his service at Qarmat Ali; those symptoms continue to the present. *See id.*, 137:5-7. Also at around the time of his service at Qarmat Ali, McGowan experienced sunburnt and sensitive eyes and an ear infection which may not have been related to sodium dichromate exposure. *See id.*, 41:4-17, 137:13-14. Since his return from Qarmat Ali, McGowan has additionally experienced chronic obstructive pulmonary disease symptoms and keratin deposits on various parts of his body, including ankles and hands. *See id.*, 137:17-21. McGowan's pulmonary symptoms come and go. *See id.*, 164:18-22. In addition, since approximately 2004 McGowan has experienced ophtalmic migraine headaches and feelings of grittiness in his eyes. *See id.*, 160:11-20. Although McGowan has sought medical treatment for these conditions, no physician or other health care professional ever diagnosed McGowan's symptoms as caused by sodium dichromate poisoning. *See id.*, 141:5-18. According to McGowan's medical records, his first respiratory symptoms began in February 2003, before he was deployed to Qarmat Ali, when he was diagnosed with sand-related bronchitis. *See id.*, 165:7 - 166:8. In August 2004, McGowan reported to a treating physician his suspicion that his respiratory symptoms might be related to post-traumatic stress disorder, because his cough appeared to be associated with flashbacks to being in a desert environment, and felt identical to the sensation of coughing up sand. *See id.*, 168:23 - 169:6. In February 2005, McGowan consulted with a treating physician for a "follow up for probable asthma" and reported that his symptoms were somewhat eased. *Id.*, 170:2-25. It appears that McGowan first learned of the possibility that sodium dichromate poisoning might be the cause of his symptoms in 2009. *See*

*id.*, 187:2-24.

Plaintiff Mueller began experiencing symptoms of shortness of breath at around the time he was demobilized after completing his service in Iraq and Kuwait, but did not report these symptoms to any health care provider contemporaneously because at the time the symptoms appeared insignificant. *See* Deposition of Stephen D. Mueller ("Mueller Depo."), 115:1-23. In addition, Mueller experienced transient nosebleed symptoms either when posted to Qarmat Ali or within a day of returning from Qarmat Ali. *See id.*, 135:1-12. Mueller did not contemporaneously attribute his nosebleeds to conditions he was exposed to at Qarmat Ali. *See id.*, 135:13-19. In 2005, Mueller received from plaintiff Ellis copies of one or both of the two fact sheets prepared by USACHPPM in September 2003, as well as lists of chemicals other than sodium dichromate to which Mueller might have been exposed while serving in Iraq and Kuwait. *Id.*, 69:23 - 73:2. Mueller first learned of KBR's role in operations at Qarmat Ali in 2009, following which he began to make inquiry regarding the connection between his symptoms and his experiences at Qarmat Ali. *See* Declaration of Stephen D. Mueller ("Mueller Decl."), ¶¶ 2-4.

On one occasion while deployed to Qarmat Ali, plaintiff Roberta sat on some stacked bags at Qarmat Ali in order to eat his lunch when a wind rose up and deposited "orange crystalline stuff" on him and his food, getting specifically into his mouth and his left eye, and on his chicken patty. *See* Deposition of Lawrence Daniel Roberta ("Roberta Depo."), 87:19 - 88:4. His eye began burning and he started to choke. *See id.*, 88:2-4. Roberta attempted to wash out his eye and mouth, and vomited twice. *See id.*, 88:5-11. After recovering from the incident, Roberta washed his chicken patty off with water from his canteen and then ate it. *See id.*, 91:14-24. At the time, Roberta was not concerned about the possibility that the orange substance

presented a health risk, because he could see that people had been walking through the substance, and apparently inferred therefrom that the substance was not hazardous. *See id.*, 91:6-10. The substance looked like salt to Roberta, and when he heard the term "sodium dichromate" he initially assumed that the term referred to table salt, and assumed that it was not dangerous. *See id.*, 88:12-16, 98:6-19, 107:21 - 108:3. In November 2003, Roberta attended a briefing at which he learned that the chemical was not simply sodium but rather sodium dichromate. *See id.*, 98:14-19, 105:10-22. However, at the briefing Roberta and his fellow soldiers were advised that chromium was a "necessary nutrient," and therefore "nothing to worry about." *Id.*, 105:20-24. Roberta subsequently underwent a battery of tests – he did not know the reason for the tests – following which he was advised of the possibility that he would suffer adverse health effects from his exposure to sodium dichromate. *See id.*, 106:3-17. Roberta did not understand what this meant in light of the assurances he had received that chromium was "nothing to worry about." *Id.*, 106:18-21. Beginning in 2003, Roberta began experiencing trouble breathing, diminished lung capacity, chest pains, migraines, and eye swelling. *See id.*, 130:1-4. Those injuries continue to present. In addition, the valve at the top of Roberta's stomach has ceased functioning, requiring surgical intervention, his body has stopped producing testosterone, he experiences chronic diarrhea, he suffers from skin rashes, walks poorly and with the aid of a cane due to possible sciatic nerve damage, has tooth problems, and reactive airway disorder. *See id.*, 130:4-12. None of these symptoms were present prior to 2003. *See id.*, 131:16-25. When Roberta returned to the United States from the Middle East in December 2003, he was specifically concerned that the symptoms he was experiencing might have been caused by exposure to sodium dichromate at Qarmat Ali. *See id.*, 132:1 - 133:1. Roberta did not learn of

KBR's role at Qarmat Ali or of its identity until December 2008. *See* Declaration of Lawrence Roberta ("Roberta Decl."), ¶ 2-4.

While deployed to Qarmat Ali, plaintiff Rosgen noticed a brownish powder covering many surfaces, in closed and open sacks, and on the sand at the site. *See* Deposition of Dennis Wayne Rosgen ("Rosgen Depo."), 88:3 - 90:17. According to Rosgen's testimony, after noticing the powder, Rosgen inquired of KBR personnel – with the knowledge that he was speaking with KBR personnel – and was informed in response that the powder was "fine" and that he did not need to "worry about it." *Id.*, 117:21 - 118:5, 131:24 - 132:7. Within three to four days following Rosgen's second visit to Qarmat Ali, he experienced rashes, coughing, and nosebleeds. *See id.*, 125:5-11. Contemporaneously, Rosgen believed his rash was a heat rash, and treated it with topical creams. *See id.*, 127:18-22. Rosgen did not contemporaneously attribute any of his symptoms to his time spent at Qarmat Ali, and did not discuss them with his fellow soldiers. *See id.*, 127:10 - 128:21. At some time in 2003 or 2004, Rosgen attended a meeting at which he and fellow soldiers were advised that they might have been exposed to sodium dichromate, but Rosgen did not at that time believe that his irritation symptoms were likely to have been caused by chemical exposure, because they seemed to him to be within the normal range of responses to the desert climate. *See id.* 44:17 - 46:25, 127:10 - 128:21. At this meeting, it appears that Rosgen received a copy of one or more of the "fact sheets" prepared by USACHPPM in September 2003 (discussed below). *See id.*, Exh. Bix 5165, 44:17 - 46:25. Rosgen for the first time began to suspect that his injuries were caused by exposure to sodium dichromate at Qarmat Ali approximately four months after returning home from the Middle East in approximately April 2004, due to the fact that his nosebleeds and rashes were continuing to persist. *See id.*, 128:22 -

130:4. At that time, Rosgen was not experiencing any additional symptoms. *See id.*, 130:5-8.

At the same time that Rosgen began to suspect that his rashes, coughing, and nosebleeds had been caused by sodium dichromate poisoning, he also began to suspect that KBR had some responsibility for his exposure to sodium dichromate, because he knew that he was escorting KBR personnel when he was assigned to Qarmat Ali, and knew that KBR had provided him with assurances that the brownish powder he had seen at Qarmat Ali was "fine" when he inquired of KBR personnel whether the powder was cause for concern. *See id.*, 131:3 - 132:7. According to Rosgen's testimony, the reason he did not bring a lawsuit against KBR in 2004 was because "a lot of times [he] d[idn't] believe in doing lawsuits if [he] can help it." *Id.*, 132:8-16. Apparently shortly thereafter, Rosgen began experiencing additional symptoms, including asthma, sleep apnea, liver abnormalities, and acid reflux. *See* Rosgen Interrogatory Responses Nos. 15 and 19. In April 2005, Rosgen consulted his treating physician at the Portland VA hospital regarding his respiratory and other complaints. *See* Rosgen Depo. Exh. Bix 5165. At that consultation, Rosgen was advised by his physician that "no long-term adverse health effects related to cancer or reproduction are expected" because "[s]tudies" have shown that increased risk of cancer requires "more than two years of daily exposure" to sodium dichromate. *See id.* Rosgen's physician diagnosed him with "[p]ossible reactive airways disease," but expressly declined to attribute the condition to sodium dichromate exposure on the stated ground that "there are no known pulmonary side effects of dichromate." *Id.* The physician hypothesized that Rosgen's pulmonary issues might have been caused by complications secondary to a respiratory infection. *See id.* Rosgen testifies that he did not learn that KBR had any contractual duty to ensure the safety of personnel at Qarmat Ali prior to a 2009 conversation with plaintiff Bixby. *See*

Declaration of Dennis Rosgen ("Rosgen Decl."), ¶¶ 2-4.

While plaintiff St. Clair was deployed to Qarmat Ali, he observed "obvious" and "unmistakable . . . yellowish and orangish chemicals caked on all the walls." Deposition of Aaron St. Clair ("St. Clair Depo."), 137:14-21. St. Clair testifies that he was specifically advised "by KBR" that the observable chemical was "a mild skin irritant," suggesting to St. Clair that it was "not a dangerous substance." *Id.*, 141:3-22. While deployed in Iraq and Kuwait, St. Clair experienced symptoms of nosebleeds and coughing. *See id.*, 199:25 - 200:17. These symptoms were present during the entire course of St. Clair's time in the Middle East, and were not limited to his time spent at Qarmat Ali. *See id.* By the end of his deployment, he was additionally experiencing symptoms of light-headedness, muscle soreness, headaches, fatigue, sore joints, ringing in the ears, diarrhea, shortness of breath, digestive problems, and sleep apnea. *See id.*, 126:21 - 127:7, 236:15-25. St. Clair consulted with medical care providers regarding these symptoms, and was advised that they were caused by "some kind of virus" and instructed to "ride it out." *Id.* At the time of his demobilization in April 2004, St. Clair was approached by plaintiff Ellis, who advised him that he had been exposed to sodium dichromate at Qarmat Ali and that sodium dichromate was "a known carcinogen," and gave him a copy of one or both of the two "fact sheets" prepared by USACHPPM in September 2003 (described below). *Id.*, 123:2 - 125:10, 125:15 - 126:17. St. Clair does not recall whether Ellis referred to any other possible health effects from exposure to sodium dichromate. *See id.*, 126:18-20. In part because he had been advised by medical care providers that his symptoms had been caused by a virus and in part because at the time St. Clair understood sodium dichromate to function only as a carcinogen, St. Clair did not at that time attribute his symptoms to sodium dichromate exposure, although he did

not rule out sodium dichromate poisoning as a possible cause. *See id.*, 127:12 - 129:1. Later, in or around 2005 or 2006, St. Clair met with Ellis again, at which time Ellis advised St. Clair to consult with a physician regarding sodium dichromate exposure and may at that time have provided him with one or more additional copies of the USACHPPM fact sheets. *See id.*, 193:12-25. St. Clair first learned of KBR's role in operations at Qarmat Ali and of the possibility that his health problems might have been the result of KBR's conduct in 2010, just a few weeks before retaining counsel and joining this action. *See id.*, 139:22 - 140:25.

While plaintiff Stanger was deployed to Qarmat Ali, he overheard his captain asking KBR personnel about the "chemical . . . located there," and heard them respond that "it was a mild irritant, and that [the guardsmen] should try to stay away from it, but other than that [they would] be okay." Deposition of Kevin Blaine Stanger ("Stanger Depo."); *see also id.*, 98:13-23, 101:15 - 102:6, 102:14-23, 105:11-13. About a week after the plaintiffs became involved in operations at Qarmat Ali, Stanger learned that some of the soldiers were suffering throat and nose irritation, and that plaintiff Roberta had suffered more significant health problems. *See id.*, 128:2-9. In or around October 2003, Stanger apparently received a copy of one or both of the two "fact sheets" prepared by USACHPPM in September 2003 (described below). *See id.*, 105:4-10, 107:14 - 108:19. Stanger felt that the USACHPPM fact sheets tended to verify the information he had heard from KBR personnel that sodium dichromate was harmless beyond its capacity to cause mild irritation. *See id.* Before Stanger's Qarmat Ali deployment ended, he began experiencing symptoms of nausea, and by the time his deployment ended in 2004, he had begun to experience worsening symptoms of nausea and of gastrointestinal reflux. *See id.*, 172:12-18, 174:23 - 175:22. At the time, in part because his symptoms did not appear to be

irritation symptoms and in part because he had been assured that the chemicals at Qarmat Ali were only a mild irritant, Stanger assumed his symptoms were caused by a "bug" of some kind rather than by sodium dichromate exposure. *See id.*, 175:16-22. Following Stanger's demobilization, he began to experience mild impairment of his respiratory function. *See id.*, 176:5-12. Between 2004 and 2009, Stanger consulted with physicians to seek treatment for his symptoms, and was not advised that his symptoms might be related to sodium dichromate exposure. *See id.*, 174:2-10. In 2009, after Stanger heard that some of his fellow soldiers were "getting involved in a lawsuit, he contacted plaintiffs' counsel and learned that sodium dichromate might be the cause of his own symptoms. *See id.*, 174:11-19. At that time he began doing his "own investigation into what sodium dichromate was." *Id.* Prior to that time, he was not aware of any substantial possibility that KBR might bear some responsibility for his exposure to sodium dichromate. *See id.*, 270:1-5.

While plaintiff Wilson was deployed to Qarmat Ali he experienced skin and eye irritation and nosebleeds. *See* Deposition of Kevin T. Wilson ("Wilson Depo."), 146:13 - 148:1. His nosebleeds began approximately three days into his two-week rotation at Qarmat Ali, and persisted approximately one month thereafter. *See id.* Wilson noticed other soldiers at Qarmat Ali with bloody noses. *See id.*, 148:13-21. Wilson's eye irritation began almost immediately upon his arrival at the site, and persisted until after his Qarmat Ali rotation ended. *See id.*, 152:9 - 153:4. His skin irritation likewise began on his first visit to Qarmat Ali, and persists to the present. *See id.*, 152:1-8, 153:6 - 154:15. Wilson reported his symptoms contemporaneously to military health care providers. *See id.*, 148:2-6. Wilson never heard about "any chemicals on the ground at Qarmat Ali" while he was deployed there, *id.*, 146:10-12, but in approximately 2004 he

received a letter from the U.S. Army indicating that he had been exposed to sodium dichromate and that his exposure presented potential health risks, *id.*, 145:11-14, 145:25 - 146:5. Since his demobilization and return to the United States, Wilson has additionally begun experiencing respiratory problems, sleep apnea, joint and muscle pain, and chronic fatigue. *See id.*, 154:20 - 155:4. In 2004, Wilson received from plaintiff Ellis a copy of Ellis' "buddy statement" (described above) recording the irritation symptoms suffered by members of Ellis' platoon that Ellis was aware of. *See id.*, 194:2 - 198:5. Wilson first learned of the possibility that KBR might be responsible for his exposure to sodium dichromate at Qarmat Ali in 2008. *See Declaration of Kevin Wilson ("Wilson Decl."), ¶¶ 2-4.*

Plaintiff Yeargin visited the site at Qarmat Ali on only one occasion of approximately six hours. *See Deposition of Donald A. B. Yeargin ("Yeargin Depo."), 31:20-25.* Within a day or two following that deployment, Yeargin began experiencing breathing problems which he reported to a medic. *See id.*, 108:1-25. Since that time, he has suffered skin cancer, chronic obstructive pulmonary disease, sleep apnea, and a heart attack. *See id.*, 31:3-12. In October 2003, Yeargin attended a meeting at which he filled out a form regarding his exposure to sodium dichromate at Qarmat Ali. *See id.*, 112:1 - 118:7. The form was apparently the same one filled out in October 2003 by plaintiff Bixby and other plaintiffs, indicating that sodium dichromate had been found at Qarmat Ali, but that "based upon the low levels and the brief exposure times, there [wa]s no expected long-term health risk [from the exposure]." *See id.* Yeargin testifies that the fact that this meeting featured personnel from Walter Reed hospital caused him to conclude that the symptoms he was experiencing could have been caused by exposure to sodium dichromate at Qarmat Ali. In April 2004, during his demobilization, Yeargin received copies of

the "fact sheets" prepared by USACHPPM in September 2003. *See id.*, 121:23 - 122:23.

Yargin first learned of KBR's role in operations at Qarmat Ali in 2011. *See id.*, 207:7 - 208:16.

On the day of or in the days immediately following a June 25, 2003, site visit to Qarmat Ali, U.S. Army Corps of Engineers safety officer Michael Remington prepared a memorandum that he subsequently provided both to his superiors within the Corps and to KBR officials regarding the widespread presence of sodium dichromate at Qarmat Ali and the health risks it presented. *See* Deposition of Michael B. Remington ("Remington Depo."), 15:12-16, 72:2-5, 74:8-11, 74:13-24. During the course of his site visit, Remington learned that KBR personnel were aware of the presence of sodium dichromate at Qarmat Ali, but he formed the impression that at that time they did not understand the health risks the chemical presented, because of their failure to require or advise their own employees to wear or use protective gear and clothing to prevent exposure to it. *See id.*, 89:13 - 90:19, 91:20-22, 92:2-8. Remington recommended both that KBR require its own employees to wear personal protective gear while working in areas contaminated by sodium dichromate (without reference to National Guardsmen deployed to the site) and that KBR post signs warning of the hazard. *See id.*, 89:13 - 90:19. At some unspecified time after KBR received Remington's memorandum and recommendations, chemical hazard signs were posted in at least two locations at Qarmat Ali, indicating in both English and Arabic as follows: "full protective equipment and chemical respirator required, sodium dichromate exposure." *See id.*, 105:2 - 106:9. The record contains no evidence that any plaintiff ever saw any such chemical hazard sign while serving at Qarmat Ali.

In September 2003, USACHPPM prepared two fact sheets regarding sodium dichromate exposure at Qarmat Ali. The first USACHPPM fact sheet advised that the army had

"discovered" sodium dichromate at Qarmat Ali in the summer of 2003, indicating that "[l]ow levels of the chemical were measured in the air," and that significant "protective measures were taken prior to September 2003" "[i]n order to reduce the possibility of exposure." *See* September 19, 2003, USACHPPM fact sheet. Regarding sodium dichromate, the fact sheet advised that "[a]lthough some forms of chromium are essential for health, chromium VI, otherwise known as hexavalent chromium, can be toxic in certain doses." *See id.* The fact sheet indicated that exposure to sodium dichromate could cause several specified irritation-related symptoms, and that "[l]ong-term exposure over time can cause lung cancer." *Id.* However, it further specified that "[s]uch symptoms can appear for many reasons, even in people who have no exposure to sodium dichromate." *Id.* Finally, the fact sheet indicated that the army was "taking several measures to address concerns of those potentially exposed to contaminants at Qarmat Ali," including "[d]eveloping a risk assessment to verify that current protective measures are working, and to determine if further measures are needed," and "[d]eveloping and implementing a robust risk communication program to keep everyone informed and involved." *See id.*

The second USACHPPM fact sheet indicated that studies of reproductive effects of sodium dichromate exposure on humans indicated no adverse health effects, that at "very high doses injected into laboratory animals" some reproductive effects had been noted, that workers exposed to hexavalent chromium "for extended periods" had higher lung cancer rates than the general population, "probably due to the chromium inhaled over years," but that "[b]reathing in small amounts of chromium for short periods of time" was generally harmless, that breathing in chromium could cause asthma attacks in those "allergic" to chromium, that exposure to chromium dust "at sufficient levels" "may" cause irritation symptoms, but that such symptoms

could also be caused by exposure to "dust and sand." *See* September 24, 2003, USACHPPM fact sheet. The second fact sheet further indicated that "[e]veryone normally eats, drinks, breathes or comes into contact in some way with a small amount of chromium daily, often as part of a normal diet" that "[a] small amount of chromium is actually a vital nutrient in healthy people," and that "[c]hromium VI is found in cigarette smoke, as well." *Id.* The fact sheet further indicated that:

Most of the chromium that you swallow or breathe leaves your body within a few days in your urine or feces and never enters your blood. The small amount that does enter the blood circulates and then leaves the body. . . pass[ing] out of the body in the urine within a few days.

*Id.*

It appears that some of the plaintiffs, including Ellis, Mueller, and St. Clair, may have been provided with copies of one or more of these two USACHPPM fact sheets at some time in 2005. In addition, it appears that plaintiffs Keiper, Rosgen, St. Clair, and Yeargin may have been provided with a copy of one or more of the two fact sheets at some time in 2004, and that plaintiff Stanger may have received copies in October 2003.

## ANALYSIS

By and through their fifth amended complaint, plaintiffs allege defendants' liability for negligence and for fraud arising out of their exposure to sodium dichromate at Qarmat Ali. Under Oregon law,<sup>4</sup> the statute of limitations applicable to a plaintiff's claim of negligence is two

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<sup>4</sup> Plaintiffs' claims in this action are substantively based in Oregon law. *See* Fifth Amended Complaint, *passim*. Moreover, this court, sitting in diversity, applies Oregon choice of law rules, *see Klaxon Co. v. Stentor Elec. Mfg. Co.*, 313 U.S. 487 (1941), under those rules in the absence of any conflict between the law of the forum state and of any other jurisdiction with an interest in the dispute, the law of the forum state governs, and in the presence of such a conflict, the law of the jurisdiction with the most significant relationship to the parties and their dispute

years. *See* Or. Rev. Stat. 12.110(1) ("An action . . . for any injury to the person or rights of another, not arising on contract, and not especially enumerated in this chapter, shall be commenced within two years"); *see also, e.g.*, *McLain v. Maletis Bev.*, 200 Or. App. 374, 376, n. 1 (2005). The same statute of limitations and two-year limitations period is likewise applicable to a plaintiff's claim of fraud. *See* Or. Rev. Stat. 12.110(1); *see also, e.g.*, *Murphy v. Allstate Ins. Co.*, 251 Or. App. 316, 321 (2012). As noted above, defendants assert that all claims brought by all plaintiffs in this action are time-barred under the applicable two-year limitations period, but in support of the motion now before the court argue only that the claims brought by plaintiffs Arnold, Ashby, Bixby, Ellis, Ing, Jewell, Keiper, McGowan, Mueller, Roberta, Rosgen, St. Clair, Stanger, Wilson, and Yeargin (collectively, the "subject plaintiffs") are time-barred.

Under Or. Rev. Stat. 12.110(1), the two-year limitations period applicable to personal injury claims "based upon fraud or deceit" is "deemed to commence only from the *discovery* of the fraud or deceit." Or. Rev. Stat. 12.110(1) (emphasis supplied). However, that discovery rule "operates in conjunction with the general claim-accrual principle that applies to all claims—*viz.*,

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governs, *see Erwin v. Thomas*, 264 Or. 454, 456-458 (1973). Here, the plaintiffs' alleged injuries occurred in Iraq, Kuwait, and Oregon; the plaintiffs all reside in Oregon; the defendants are headquartered in Texas and the United Arab Emirates and are incorporated under Delaware and Cayman Islands law; the alleged tortious conduct at issue took place in Iraq; and the parties' relationship is centered around Iraq. Because of the difficulty the court and parties would experience in determining and applying Iraqi law, *see* <http://www.loc.gov/law/help/guide/nations/iraq.php>, it would be inappropriate to apply Iraqi law here, *see* Restatement 2d. of Conflict of Laws § 6(2)(g), *see also, e.g.*, *Casey v. Manson Constr. & Engineering Co.*, 247 Or. 274, 278-279 (1967) (taking guidance from the Restatement in resolving a conflicts of law issue), and of the United States jurisdictions with an interest in the case, Oregon's interest is greater than that of Texas under the applicable circumstances, indicating that the Oregon courts would conclude that Oregon law governs the parties' dispute. *See Erwin*, 264 Or. at 456-458. In consequence, Oregon's statutory limitations period governs the timeliness of plaintiffs' claims. *See* Or. Rev. Stat. 12.430(1)(a); *see also, e.g.*, *Cropp v. Interstate Distrib. Co.*, 129 Or. App. 510, 513-514 (1994); *Frosty v. Textron, Inc.*, 891 F. Supp. 551, 555-556 (D. Or. 1995).

that a claim accrues when all of the facts exist that the plaintiff must prove in order to recover on the claim." *Murphy*, 251 Or. App. at 321, *citing Berry v. Branner*, 245 Or. 307, 309, 315-16 (1966), *Duyck v. Tualatin Valley Irrigation Dist.*, 304 Or. 151, 161 (1987). Under the general claim-accrual principal identified by the *Murphy* court, "the statute of limitations begins to run when the plaintiff knows or in the exercise of reasonable care should have known facts which would make a reasonable person aware of a substantial possibility that each of the three elements [of actionable injury] ([namely,] harm, causation, and tortious conduct) exists." *Gaston v. Parsons*, 318 Or. 247, 256 (1994); *see also Murphy*, 251 Or. App. at 321 (applying the interpretation of the discovery rule announced in *Gaston* to claims of fraud), *Cairns v. Dole*, 195 Or. App. 742, 744-745 (2004) (applying the interpretation of the discovery rule announced in *Gaston* to claims of non-medical negligence).<sup>5</sup> Thus, a claim subject to the limitations period provided in Or. Rev. Stat. 12.110(1) accrues either when the plaintiff actually discovers facts that would alert a reasonable person to the substantial possibility that each of the three elements of an actionable injury, namely harm, causation, and tortious conduct, is present, or, if earlier, when the plaintiff in the exercise of reasonable diligence should have discovered such facts. *See Gaston*, 318 Or. at 256; *Murphy*, 251 Or. App. at 321; *Cairns*, 195 Or. App. at 744-745; *Mathies v. Hoeck*, 284 Or. 539, 542 (1978).

Relevant to this analysis will be a plaintiff's failure to make a further inquiry if a reasonable person would have done so. The discovery rule does not protect those who sleep on their rights, but only those who, in exercising the diligence expected of a reasonable person, are unaware that they have suffered legally cognizable

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<sup>5</sup> For purposes of the discovery rule, "'substantial possibility' connotes something less than a preponderance, but still a fairly high level of certainty, and certainly more than a suspicion." *Keller v. Armstrong World Indus.*, 197 Or. App. 450, 462 (2005).

harm.

*Gaston*, 318 Or. at 256.

Where a plaintiff is aware of having suffered a medically cognizable harm, but is presented by medical experts with multiple, roughly equally plausible alternative explanations or diagnoses of the harm, fewer than all of which support an action in tort, there is necessarily a question of fact as to whether the element of causation has been established and therefore also as to whether the applicable limitations period has begun to run. *See Keller v. Armstrong World Indus.*, 197 Or. App. 450, 465-467 (2005). Moreover, even where such a plaintiff forms the subjective belief in the accuracy of one or more factual explanations for his or her injury which would support an action in tort, such "subjective belief is not determinative of the question of what a reasonable person should have known about the elements of a statute of limitations, because that issue is determined using an objective standard." *Id.* at 467, *citing Doe v. American Red Cross*, 322 Or. 502, 512 (1996); *Gaston*, 318 Or. at 256. Where the plaintiff is not a medical expert but has received multiple alternative factual explanations for his or her medical injury from one or more medical experts, the plaintiff's subjective belief in the accuracy of any specific explanation does not foreclose the possibility that a trier of fact could conclude that a reasonable person under the plaintiff's circumstances might instead have credited a different explanation which would not have supported an action in tort. *See id.* In addition, the statute of limitations does not begin to run against a plaintiff who suffers medically cognizable symptoms until the plaintiff, in the exercise of reasonable diligence and reasonable prudence, both should associate those symptoms "with a serious or permanent condition" rather than a transient, minor condition, and should perceive "the role which the defendant has played in inducing that [serious or

permanent] condition." *Schiele v. Hobart Corp.*, 284 Or. 483, 490 (1978).

Here, all subject plaintiffs suffered medically cognizable symptoms more than two years before filing or joining this lawsuit. However, as to a majority of the subject plaintiffs, there is at minimum a question of fact as to whether each plaintiff understood or should have understood that his symptoms had been caused by exposure to dichromate at any time more than two years before bringing his claims. Most subject plaintiffs received plausible diagnoses or explanations of their symptoms from their medical care providers that did not implicate sodium dichromate as a causal factor, on the basis of which a trier of fact could conclude that it was reasonable for such plaintiffs to fail to discover the causal link between their injuries and their exposure to sodium dichromate at Qarmat Ali. In addition, some subject plaintiffs were unaware of their exposure to sodium dichromate until shortly before bringing claims in this action.

Also as to a majority of the subject plaintiffs, there is a question of fact as to whether each subject plaintiff associated or should have associated his symptoms with a "serious or permanent condition" more than two years before bringing his claims. A trier of fact could conclude that most subject plaintiffs whose symptoms were limited to irritation symptoms and who received plausible diagnoses or explanations of those symptoms that did not implicate sodium dichromate could reasonably have understood his symptoms to be both minor and transitory. Moreover, several subject plaintiffs received and/or reviewed copies of the September 19, 2003, USACHPPM fact sheet and/or the September 24, 2003, USACHPPM fact sheet, on the basis of which a trier of fact could conclude that it was reasonable for those subject plaintiffs who reviewed the fact sheets and whose symptoms were chiefly or exclusively limited to irritation symptoms to fail to associate their symptoms with any serious or permanent condition. Indeed,

the fact sheets effectively assert the absolute *impossibility* that any subject plaintiff's symptoms, whether limited to irritation or not, could be so associated, in that the fact sheets unequivocally assert that *all* inhaled or ingested sodium dichromate is quickly flushed from the body without producing symptoms, and that a minimum of two years' exposure is required before any serious or permanent health consequences can occur.

In addition, the evidence of record discussed above could support the reasonable inference that most subject plaintiffs reasonably failed to perceive defendants' role in permitting the plaintiffs to be exposed to sodium dichromate at Qarmat Ali at any time more than two years before bringing claims in this action. A majority of the subject plaintiffs were at such times unaware that the contractors they escorted to and at Qarmat Ali were KBR personnel, and as to those subject plaintiffs who were aware at such times that KBR played a role in operations at Qarmat Ali, there is a question of fact as to most such subject plaintiffs as to whether it was reasonable to fail to perceive a substantial possibility that the exposure to sodium dichromate was a consequence of KBR's tortious conduct.

Specifically as to plaintiff Arnold, although he formed a subjective belief that exposure to sodium dichromate might be the cause of his symptoms contemporaneously with experiencing them while deployed to Iraq and Kuwait, he also sought medical advice each time his symptoms "flared up" and on each such occasion was advised that the cause of his symptoms was "just typical of being in the desert or . . . asthma." Arnold Depo., 94:7-23. In light of what Arnold was told by his medical care providers, there remains a question of fact as to whether Arnold should have understood that sodium dichromate exposure was the cause of his symptoms more than two years before he brought his claims, despite his early subjective belief. *See Keller*, 197

Or. App. at 467, *citing American Red Cross*, 322 Or. at 512, *Gaston*, 318 Or. at 256. In addition, the evidence of record does not establish that Arnold knew or should have known in the exercise of reasonable diligence prior to 2009 that there was a substantial possibility that his exposure was the consequence of defendants' tortious conduct. *See Arnold Depo.*, 151:3-23; *Arnold Decl.*, ¶ 2. Because defendants have not met their burden to establish the absence of any question of fact as to these issues, defendants' motion is denied as to Arnold's claims.

As to plaintiff Ashby, although he was aware of the presence of sodium dichromate at Qarmat Ali by not later than March 2004, he was contemporaneously advised that no members of his unit had been exposed to the chemical and that he did not need to worry about it. *See Ashby Depo.*, 116:20-25, 118:8 - 119:9. In addition, although Ashby knew roughly contemporaneously he had been exposed to sodium dichromate at Qarmat Ali, he also knew he had potentially been exposed to other industrial chemicals at other locations. *See id.*, 225:2-6. There is therefore a question of fact as to whether Ashby reasonably failed to understand that his irritation symptoms had been caused by sodium dichromate exposure at any time more than two years before he brought his claims. In addition, the evidence of record does not establish that Ashby knew or should have known in the exercise of reasonable diligence prior to 2009 that there was a substantial possibility that his exposure was the consequence of defendants' tortious conduct. *See id.*, 41:18-24. Because defendants have not met their burden to establish the absence of any question of fact as to these issues, defendants' motion is denied as to Ashby's claims.

As to plaintiff Bixby, while he was aware of respiratory symptoms including coughing and nosebleeds contemporaneously with his service at Qarmat Ali, he understood that military medical officers diagnosed similar symptoms among members of his unit to windborne sand, and

considered his symptoms to be within the normal range of respiratory problems commonly associated with time spent in a desert environment. *See* Bixby Depo., 78:1-24, 176:12 - 177:17. In addition, Bixby was informed by the military that there was no expected long-term health risk associated with his exposure to sodium dichromate at Qarmat Ali. *See id.*, 173:8-9. There are therefore necessarily questions of fact as to whether Bixby should have understood that sodium dichromate exposure was the cause of his symptoms more than two years before he brought his claims, and as to whether Bixby should have associated his symptoms with sodium dichromate poisoning. Additionally, the record of evidence does not establish the absence of any question of fact as to whether Bixby should have known more than two years prior to bringing his claims of the substantial possibility that his symptoms were the result of defendants' tortious conduct. Because defendants have not met their burden to establish the absence of any question of fact as to these issues, defendants' motion is denied as to Bixby's claims.

As to plaintiff Ellis, although he experienced nosebleeds and rashes while and after being deployed to Qarmat Ali, and observed similar symptoms in others, *see* Ellis Depo., 110:23 - 111:20, in response to his contemporaneous inquiry of military medical officers regarding such symptoms he was advised that they were normal responses to the desert environment, *see id.*, 143:6-25. After his return to the United States, his medical providers at the VA hospital diagnosed his persisting respiratory problems as secondary to post-traumatic stress disorder. *See id.*, 170:6-22. In addition, despite Ellis' evident suspicion that sodium dichromate exposure might be implicated in the cause of his symptoms, in March 2005 Ellis reviewed the USACHPPM fact sheets of September 2003 which indicated the effective impossibility that his suspicions might be correct. *See id.*, 183:25 - 187:10. In light of the foregoing, a jury could

conclude that Ellis reasonably failed to understand that his irritation symptoms had been caused by sodium dichromate exposure at any time more than two years before he brought his claims. Moreover, although Ellis was contemporaneously aware that the contractors he escorted to and at Qarmat Ali were KBR personnel, the record does not establish his knowledge of KBR's role and responsibilities at Qarmat Ali prior to 2009. *See* Ellis Decl., ¶¶ 2-4. Because defendants have not met their burden to establish the absence of any question of fact as to these issues, defendants' motion is denied as to Ellis' claims.

As to plaintiff Ing, in light of his failure contemporaneously to connect his transient nosebleed symptoms or relatively mild respiratory symptoms with his service at Qarmat Ali, and the advice he received from medical providers in January 2006 that there was no evidence of his having been harmed by sodium dichromate exposure, *see* Ing Depo., 213:13 - 214:24, 215:25 - 216:24, 203:5 - 204:19, there is necessarily a question of fact as to whether Ing reasonably failed to understand that his symptoms had been caused by sodium dichromate exposure at any time more than two years before he brought his claims. The evidentiary record likewise does not foreclose the possibility that Ing reasonably failed to associate his symptoms, such as they were, with any serious or permanent condition more than two years prior to bringing his claims. Finally, the record fails to establish that Ing should reasonably have understood that there was any substantial possibility that his injuries were caused by defendants' tortious conduct prior to 2009. *See* Ing Decl., ¶¶ 2-4. Because defendants have not met their burden to establish the absence of any question of fact as to these issues, defendants' motion is denied as to Ing's claims.

As to plaintiff Jewell, the evidence of record does not establish that Jewell had any knowledge of sodium dichromate or of his potential exposure to it at Qarmat Ali prior to 2010,

*see* Jewell Depo., 149:22 - 150:14. Moreover, the evidence of record does not establish that Jewell was aware of KBR's role at Qarmat Ali prior to late 2008. *See id.*, 146:11 - 149:6; *see also* Jewell Decl., ¶¶ 2-4. In consequence, defendants' motion is denied as to Jewell's claims.

As to plaintiff Keiper, although he experienced occasional transient nosebleeds and irritation symptoms beginning shortly after his deployment to Qarmat Ali, he sought contemporaneous medical treatment for his symptoms and was advised that the most likely cause was dust. *See* Keiper Depo., 63:13 - 66:19. Moreover, in 2004 Keiper reviewed the USACHPPM fact sheets that asserted the effective impossibility that any plaintiff's symptoms could have been caused by sodium dichromate exposure. *See id.*, 58:17 - 59:5. In addition, there is evidence of record that prior to 2006, Keiper did not associate his symptoms with any permanent or serious condition, and that after his symptoms worsened, they were diagnosed as asthma-related. *See id.*, 63:9 - 64:5, 98:14-18. The record does not establish that Keiper understood or should have understood the possibility that sodium dichromate was causally implicated in his symptoms prior to March 2010, *see id.*, 58:11-16, or that prior to that time he should in the exercise of reasonable diligence have been aware of the substantial possibility that KBR's tortious conduct caused his symptoms, *see id.*, 129:10 - 130:5. In consequence, defendants' motion is denied as to Keiper's claims.

As to plaintiff McGowan, although he has experienced non-transitory symptoms since his deployment to Qarmat Ali, he has sought medical treatment for his conditions without ever having been diagnosed with sodium dichromate poisoning at any time prior to 2009, and to the contrary received alternative diagnoses that did not implicate sodium dichromate. *See* McGowan Depo., 41:4-17, 137:5-21, 141:5-18, 160:11-20, 164:18-22, 165:7 - 166:8, 168:23 - 169:6.

Because a trier of fact could infer in light of these alternative diagnoses that McGowan reasonably failed to understand the substantial possibility that his injuries had been caused by exposure to sodium dichromate at Qarmat Ali prior to 2009, defendants' motion is denied as to McGowan's claims.

As to plaintiff Mueller, the evidence of record does not establish that Mueller associated his symptoms of shortness of breath and nosebleeds with any serious or permanent condition prior to 2009. *See* Mueller Depo., 115:1-23, 135:1-12. In addition, in 2005 Mueller reviewed the USACHPPM fact sheets that asserted the effective impossibility that any plaintiff's symptoms could have been caused by sodium dichromate exposure. *See id.*, 69:23 - 73:2. Finally, there is no evidence of record sufficient to establish that Mueller should have understood the substantial possibility that his injuries could have been caused by tortious conduct of KBR prior to 2009. *See* Mueller Decl., ¶¶ 2-4. Because defendants have not met their burden to establish the absence of any question of fact as to these issues, defendants' motion is denied as to Mueller's claims.

As to plaintiff Roberta, in light of Roberta's own subjective grounds for unconcern regarding the orange crystalline substance he encountered at Qarmat Ali and of the briefing Roberta attended at which he was informed that chromium was "a necessary nutrient" and therefore "nothing to worry about," there is necessarily a question of fact to be determined by a jury as to whether Roberta should have understood the substantial possibility that sodium dichromate poisoning was the cause of his injuries. *See* Roberta Depo., 88:12-16, 91:6-10, 98:6-19, 105:10-24, 107:21 - 108:3. In light of this question of fact, Roberta's own subjective concern that sodium dichromate might in any event be implicated causally in his injuries is not dispositive of this issue. *See Keller*, 197 Or. App. at 467, *citing American Red Cross*, 322 Or. at

512, *Gaston*, 318 Or. at 256. Moreover, the record does not establish that Roberta was aware that the contractors he escorted to and at Qarmat Ali were KBR personnel, or that he was aware of KBR's role in operations at Qarmat Ali at any time prior to December 2008. *See* Roberta Decl., ¶¶ 2-4. Because defendants have not met their burden to establish the absence of any question of fact as to these issues, defendants' motion is denied as to Roberta's claims.

As to plaintiff Rosgen, the record establishes that by approximately August 2004, Rosgen subjectively suspected that his injuries might have been caused by exposure to sodium dichromate at Qarmat Ali, *see* Rosgen Depo., 128:22 - 130:4, and moreover that by that time he was aware of the substantial possibility that his exposure to sodium dichromate might have been caused by tortious conduct of KBR, *see id.*, 131:3 - 132:7. In addition, the record appears sufficient to establish that by not later than approximately April 2005, Rosgen associated or should have associated his symptoms with a serious medical condition. *See* Rosgen Interrogatory Responses Nos. 15 and 19, Rosgen Depo. Exh. Bix 5165. However, the record further establishes that in 2003 or 2004 Rosgen reviewed the USACHPPM fact sheets which asserted the impossibility that his symptoms could have been caused by sodium dichromate, *see* Rosgen Depo., 44:17 - 46:25, Exh. Bix 5165. In addition, when Rosgen sought medical treatment for his symptoms in April 2005, he was expressly advised that his symptoms could not have been caused by sodium dichromate. *See id.* In light of the assertions of the USACHPPM fact sheets and his April 2005 diagnosis, Rosgen's subjective belief that his injuries had been caused by sodium dichromate poisoning attributable to potentially tortious conduct of KBR is not dispositive, and there remains a question of fact as to whether Rosgen should have known more than two years prior to bringing claims in this action of the substantial possibility that his injuries were caused

by sodium dichromate poisoning. In consequence, defendants' motion is denied as to Rosgen's claims.

As to plaintiff St. Clair, in light of the assurances St. Clair received directly from KBR that sodium dichromate was merely a mild irritant and not dangerous, his plausible diagnoses that his symptoms were caused by a virus, his 2004 and/or 2005 review of the USACHPPM fact sheets which indicated the impossibility that exposure to sodium dichromate at Qarmat Ali could have caused any serious or permanent health condition, *see* St. Clair Depo., 123:2 - 126:17, 127:12 - 129:1, 141:3-22, 126:21 - 127:7, 193:12-25, 236:15-25, there is necessarily a question of fact as to whether St. Clair should have known more than two years prior to bringing claims in this action of the substantial possibility that his injuries were caused by sodium dichromate poisoning. Moreover, although St. Clair evidently had contemporaneous knowledge of KBR's presence at Qarmat Ali, the evidentiary record does not foreclose the possibility that he lacked reason to understand that his exposure to sodium dichromate could be attributed to KBR's tortious conduct prior to 2010. *See id.*, 139:22 - 140:25. In consequence, defendants' motion is denied as to St. Clair's claims.

As to plaintiff Stanger, the evidentiary record does not establish that Stanger knew or should have known prior to 2009 either that his symptoms of nausea and gastrointestinal reflux had been or could have been caused by exposure to sodium dichromate, *see* Stanger Depo., 174:2-10, 175:16-22, or of the substantial possibility that tortious conduct of KBR might have caused his exposure to sodium dichromate at Qarmat Ali, *see id.*, 174:11-19, 270:1-5. In consequence, defendants' motion is denied as to Stanger's claims.

As to plaintiff Wilson, although Wilson experienced cognizable symptoms roughly

contemporaneously with his service at Qarmat Ali, he was not diagnosed with sodium dichromate problems despite seeking treatment from military medical officers. *See* Wilson Depo., 146:13 - 148:21, 152: 1 - 154:15. In addition, the evidentiary record does not establish that Wilson had reason to understand that his symptoms might have been caused by tortious conduct of defendants prior to 2008. *See* Wilson Decl., ¶¶ 2-4. In consequence, defendants' motion is denied as to Wilson's claims.

As to plaintiff Yeargin, although Yeargin subjectively suspected in October 2003 that his symptoms might have been caused by exposure to sodium dichromate at Qarmat Ali, he also received and reviewed in October 2003 both a form that he filled out indicating that he had no expected long-term health effects from his exposure and the USACHPPM fact sheets indicating the impossibility that sodium dichromate exposure of short duration could cause any serious or permanent health condition. *See* Yeargin Depo., 112:1 - 118:7, 121:23 - 122:23. Yeargin's review of these documents is sufficient to establish the existence of a question of fact as to what Yeargin should have understood regarding the causation of his injuries, his subjective suspicions notwithstanding. In light of this question of fact, Yeargin's own subjective concern that sodium dichromate might in any event be implicated causally in his injuries is not dispositive of this issue. *See Keller*, 197 Or. App. at 467, *citing American Red Cross*, 322 Or. at 512, *Gaston*, 318 Or. at 256. Moreover, there is no evidence of record establishing that Yeargin had or should have had knowledge of the substantial possibility that his injuries could be attributable to tortious conduct of the defendants prior to 2011. *See id.*, 207:7 - 208:16. Because defendants have not met their burden to establish the absence of any question of fact as to these issues, defendants' motion is denied as to Yeargin's claims.

## CONCLUSION

For the reasons set forth above, defendants' motion (#338) for summary judgment as to whether certain specified plaintiffs' claims are time-barred under applicable statutes of limitations is denied.

Dated this 13th day of September, 2012.

/s/ Paul Papak  
Honorable Paul Papak  
United States Magistrate Judge